

REMARKS

Reconsideration is respectfully requested of the Official Action of December 24, 2002 relating to the above identified application.

With entry of the foregoing amendment, the claims in the application are 1, 3, 5, 7 to 9 and 11 to 16.

A petition for a two month extension of time, together with associated fee, is filed herewith.

In order to avoid the double patenting issue, Claims 17 and 18 have been deleted without prejudice. The deletion of Claim 17 also obviates the rejection of that claim under 35 U.S.C. § 112.

The rejection of Claims 1, 3, 7 and 9 under 35 U.S.C. § 102(b) as anticipated by *Hirooka, et al.* (US 5,330,813) is traversed and reconsideration is respectfully requested. It is alleged in the Official Action that *Hirooka* teaches a patch for preventing carburization containing among other materials, talc.

It is noted that the Official Action refers to examples 2 and 5. However, these examples show titanium oxide and not talc. Although talc is mentioned in column 3, at line 53, that list includes a large number of other materials and therefore the reference, applicants respectfully submit, does not describe the invention within the meaning of 35 U.S.C. § 102.

It should be further noted that the statement in the Official Action on page 3 concerning the presence of magnesia is irrelevant since magnesia as a component of the patch is not a magnesium-silicon compound which is defined by Claim 1. Consequently, it is respectfully

submitted that the use of talc in the *Hirooka* patent does not anticipate the use of the specific magnesium compounds claimed herein. It should also be noted that the "talc" is disclosed by *Hirooka* without reference to any percentages or proportions. It should be noted that applicants' invention resides in the use of a paste like or lacquer like material which is a hardening protection composition for partial carburization of a metallic component. Claim 1 has been amended to more clearly point this out. Basis is found on page 4 of the specification and in original Claim 10. It is formed from boron glass and a magnesium-silicon compound in the weight ratio of 2 to 1 to 100 to 1.

Known hardening protection compositions based on substances which form boron glass run the risk of running off in the oven during the hardening operation. This is particularly a problem after incomplete drying or due to binding of moisture from the atmosphere by the composition since the viscosity of the boron compounds is greatly reduced by water at a high temperature. Moreover, at carburization temperatures of 900° to 980°C the boron compound can vaporize until vapor pressure equilibrium is established. If this occurs, there results a decrease in the protective action due to the protective layer becoming thinner. Moreover, the oven lining which contains silica containing bricks can also be attacked under those conditions.

These problems, which have plagued the industry, are solved by the present invention. Thus, it was surprisingly found that the addition of magnesium-silicon compounds to the hardening protection compounds of the present invention will solve both problems; namely, reduce the risk of running off of the material and reducing the vapor pressure which in turn reduces the risk of attack on the oven lining.

Hirooka does not disclose the use of paste like or lacquer like materials. Furthermore, the problems discussed above are not addressed in the *Hirooka* patent. Therefore, persons skilled in the art faced with those problems would not find a solution within the four corners of the *Hirooka* patent. For these reasons, the rejection in view of *Hirooka* should be withdrawn.

The rejection of Claims 14, 15 and 16 under 35 U.S.C. § 102(b) as anticipated by *Hirooka* is traversed and reconsideration is respectfully requested. The remarks made above apply to the process claims as well. *Hirooka* simply does not teach the novel concepts of the present invention nor would a person skilled in the art learn how to overcome the problems from a reading of the *Hirooka* patent.

Rejection of Claims 5, 8, 11, 12 and 13 under 35 U.S.C. § 103(a), as unpatentable over *Hirooka* is traversed and reconsideration is respectfully requested.

The remarks made above with respect to the lack of anticipation in the *Hirooka* patent apply with equal emphasis with regard to a rejection on the ground of obviousness. There is simply no motivation in the *Hirooka* patent to form a liquid, semi-liquid or paste having the proportions and the characteristics set forth in the present invention. Consequently, the rejection on the ground of obviousness is not well founded and should be withdrawn.

The rejection of Claim 10 under 35 U.S.C. § 103(a) as unpatentable over *Hirooka*, taken with *Milaniak et al.* (US 5,366,765), is traversed and reconsideration is respectfully requested. The *Hirooka* patent is already discussed above and the remarks made there apply here as well.

The *Milaniak* patent teaches the use of a slurry for coating super alloy surfaces. However, the patent is limited to coating super alloy surfaces with an aluminum coating. Thus,

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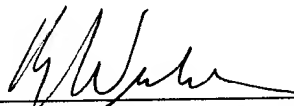
the teaching of a slurry to apply an aluminum coating would not suggest the application of a paste, semi-liquid or liquid of a boron glass together with a magnesium-silicon compound. It is, therefore, apparent that there is a lack of motivation in the Examiner's combination of references, and, consequently, a person skilled in the art would find no reason, suggestion or motivation to combine the two references to arrive at applicants' invention.

In view therefore, it is respectfully requested that the rejection be withdrawn and that the application be allowed at the Examiner's earliest convenience.

Respectfully submitted,

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